US Army
Corps of Engineers

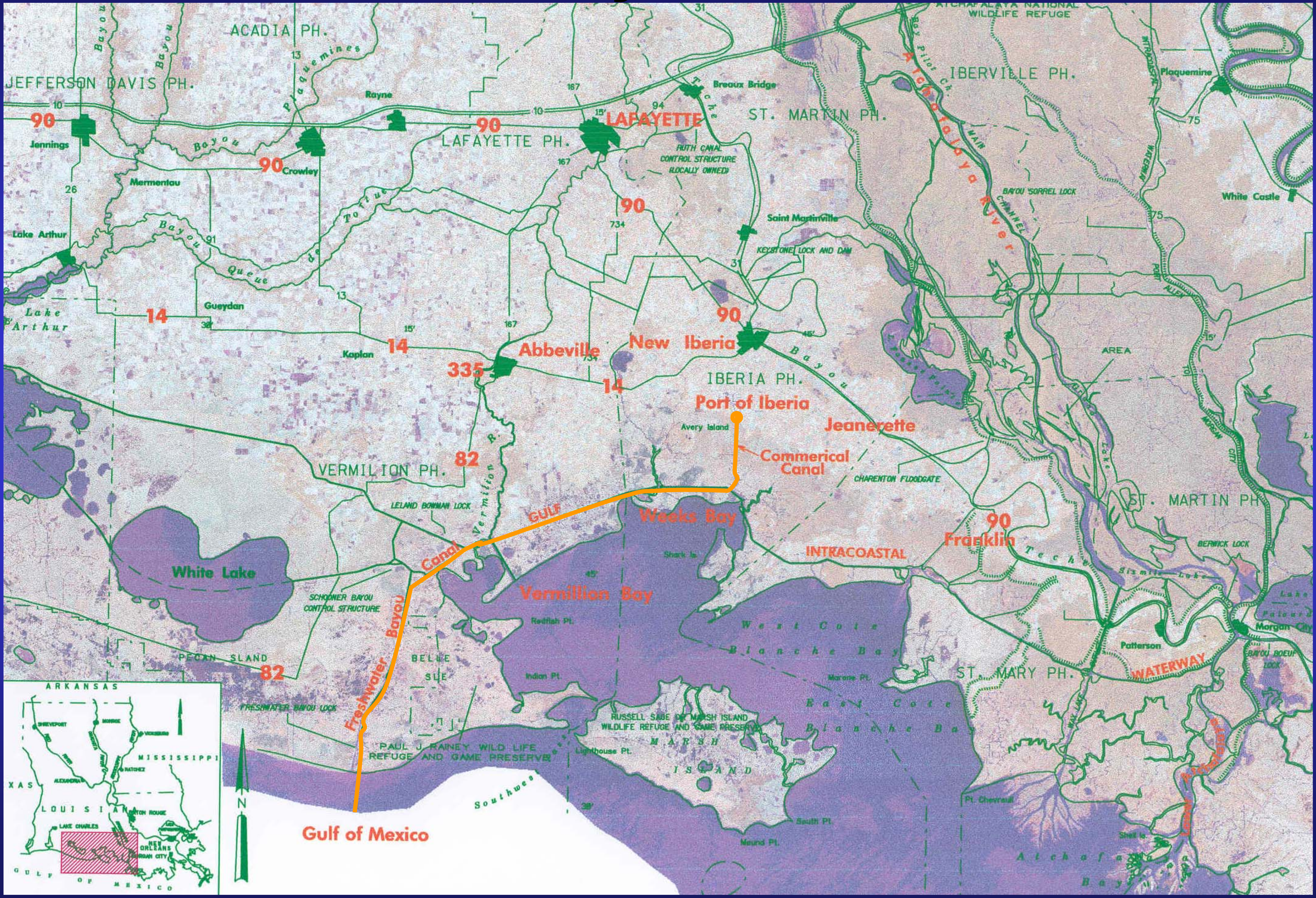
Port of Iberia, Louisiana
Navigation Project
Final Feasibility Report

Civil Works Review Board Briefing
New Orleans District Presentation
October 31, 2005

CWRB Briefing Purpose

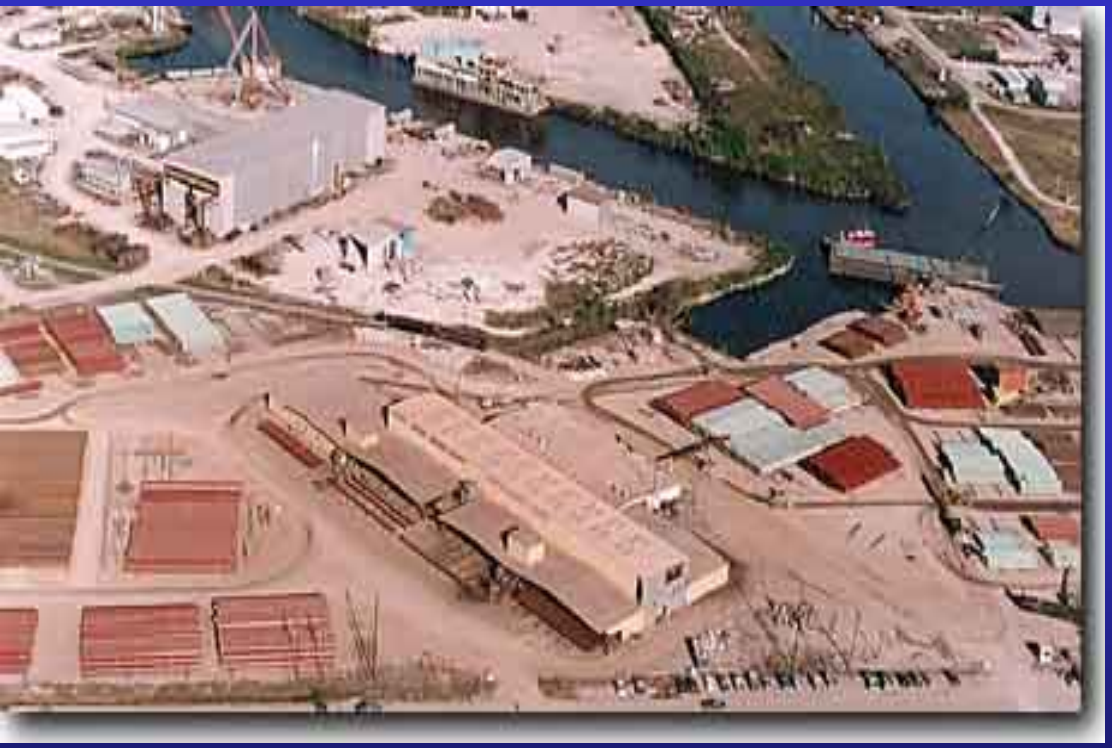
- Review the Report and Planning Process
- Summarize the Recommended Plan
- Review the Project Delivery Team Process
- Summarize the ITR and Policy Review Process
- Summarize the Public Involvement and Review Processes
- Provide Necessary Information to the CWRB for Release of the Report for State and Agency Review

Study Area



ACADIA PH.
JEFFERSON DAVIS PH.
LAFAYETTE PH.
ST. MARTIN PH.
IBERVILLE PH.
IBERIA PH.
VERMILION PH.
ST. MARY PH.
LAFAYETTE
Abbeville
New Iberia
Port of Iberia
Jeanerette
Franklin
Commerical Canal
Weeks Bay
Vermillion Bay
White Lake
GULF
Canal
Bayou
Freshwater
INTRACOASTAL
WATERWAY
Gulf of Mexico
Crowley
Jennings
Rayne
Breaux Bridge
Saint Martinville
Kaplan
Gueydan
Lake Arthur
Avery Island
Patterson
Morgan City
Plaquemine
White Castle
RUTH CANAL CONTROL STRUCTURE (LOCALLY OWNED)
KEYSTONE LOCK AND DAM
CHARENTON FLOODGATE
LELAND BOWMAN LOCK
SCHOONER BAYOU CONTROL STRUCTURE
FRESHWATER BAYOU LOCK
BAYOU SORREL LOCK
BERWICK LOCK
RUSSELL SAGE OR MARSH ISLAND WILDLIFE REFUGE AND GAME PRESERVE
PAUL J. RAINEY WILD LIFE REFUGE AND GAME PRESERVE
ATCHAFALAYA NATIONAL WILDLIFE REFUGE
West Cote Blanche Bay
East Cote Blanche Bay
MARSH ISLAND
Atchafalaya River
Atchafalaya Bay
PECAN ISLAND
BELLE ISLE
90
14
335
82
ARKANSAS
MISSISSIPPI
LOUISIANA
LAKE CHARLES
NEW ORLEANS
MORGAN CITY
GULF OF MEXICO

PORT OF IBERIA




PORT OF IBERIA

Port of Iberia

- Over 100 industries are located and operating at the Port
- Current annual payroll exceed $ 200 million
- More than 5000 employees, welders, pipefitters, mechanics, engineers, accounts, managers, etc
- Economic impact over $2.0 billion
- Total acreage of the Port exceed 2,000 acres
- Over 100,000 linear feet of developed water front


URN
GYPNESS
SCARRE

Study Authority

- Section 431 of the Water Resources Development Act of 2000, PL106-541, which reads:

  “ *The Secretary shall conduct a study to determine the feasibility of carrying out a project for navigation, Iberia Port, Louisiana*.”

Sponsorship

- **Port of Iberia**
  - Requesting agency
  - Cost-share sponsor for feasibility study
  - Roy Pontiff, Executive Director
- **Vermilion Parish Police Jury**
  - Stakeholder will provide remaining LERRDs
- **Louisiana Department of Transportation and Development (LADOTD)**
  - Future cost-share sponsor for PED and construction

Team Process

- **Vertical Team**
  - **HQ**
    - **Zoltan Montvai**
    - **Robert McIntyre**
    - **Steve Cone**
    - **Wesley Coleman**
  - **MVD**
    - **Rayford Wilbanks**
    - **Greg Ruff**
  - **New Orleans**
    - **Carol Burdine (PM)**
    - **Tawanda Wilson-Prater (PM)**
    - **Jake Terranova (ED)**
    - **Mike Salyer (Env)**
    - **Juanita Russell (Econ)**
    - **Dan Whalen (Econ)**
    - **Mike Palmieri (RE)**
    - **Mike Zack (OC)**
    - **Rodney Greenup (PM)**

Team Process

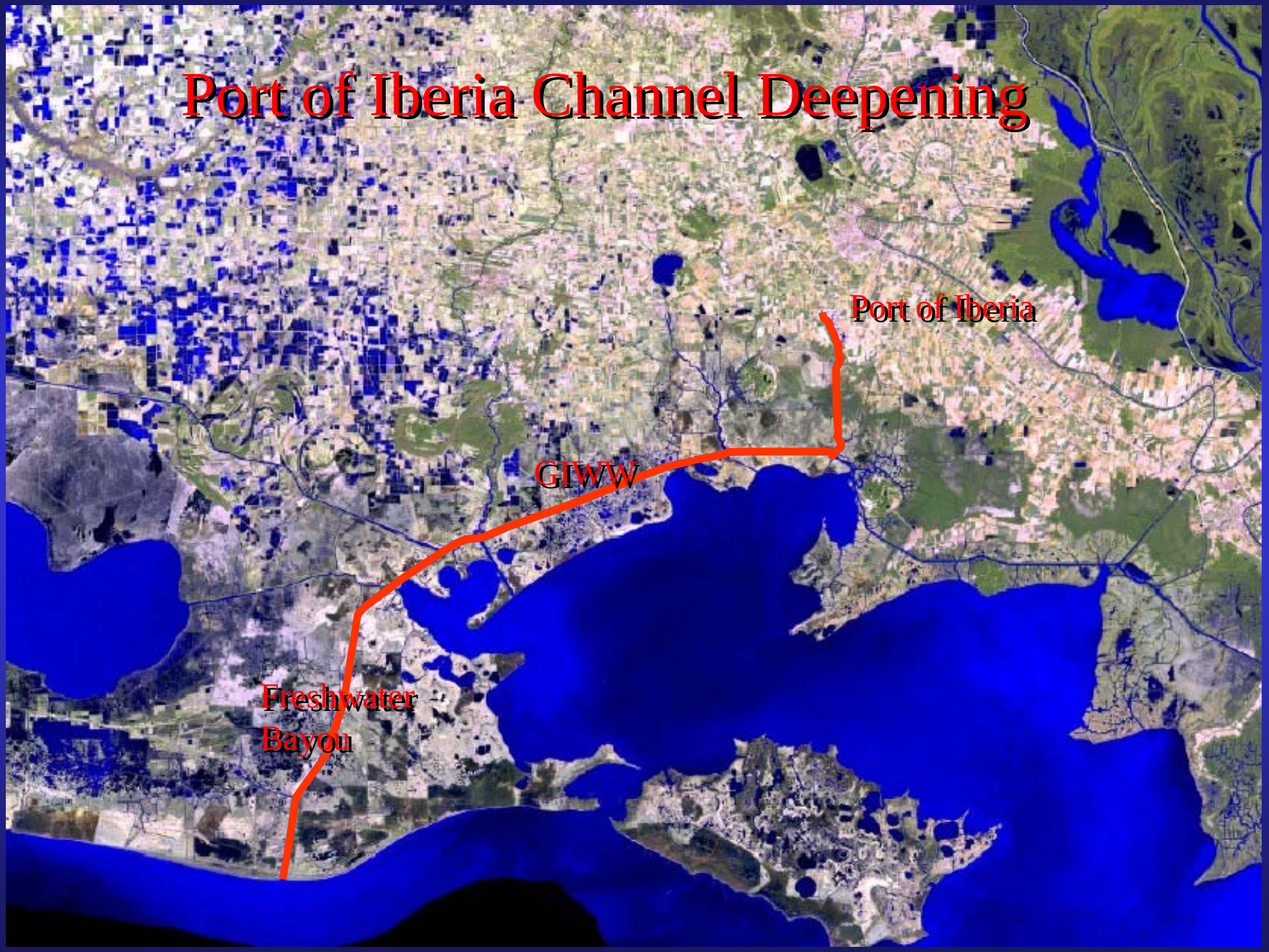
- The PDT was supplemented by Architect-Engineers and other professionals from local universities and the private sector.

- PDT and Vertical Team coordinated as necessary to resolve issues.

Recommended Plan

- The Recommended Plan has a benefit-to-cost ratio of 1.8 to 1 and includes modifying about 60 miles of the Commercial Canal, GIWW and Freshwater Bayou to a depth of 20 feet and width of 150 feet.

- Most dredge disposal would be confined to rock dikes built along the inshore channels. Any excess material would be used to replenish broken marsh adjacent to these channels.


Port of Iberia Channel Deepening
Port of Iberia
GIWW
Freshwater
Bayou

Scope of Study

- Evaluate the benefits, costs and impacts of deepening any existing channels from the POI to the Gulf.

- The Port limited the maximum depth to 20 feet due to Federal guidelines that require more cost-sharing for deeper depths.

POI Existing Conditions

- The POI specializes in constructing deepwater topsides and servicing or rehabilitating shallow water oil rigs for use in the Gulf of Mexico and other countries.
- 10 primary companies with numerous support companies employing several thousand people
- Major competitors – “The Big Four”
  - Port of Morgan City, Louisiana
  - Port of Terrebonne, Houma, Louisiana
  - Port of Corpus Christi, Texas
  - Port of Ingleside, Texas

Existing Conditions (cont.)

- The Gulf of Mexico is accessible from the POI through several shallow channels.
  - Deepest authorized channel and controlling depth is –12’ MLLG
- Channel depth restricts the type of work available to businesses in the POI

Existing Conditions (cont.)

- Topsides are delivered through the Gulf of Mexico require safety and stability criteria for that environment.
- Topsides weights are condensed and concentrated
- They can 5 to 7 stories tall but not require a large portion of the barge's deck area.
- Center of gravity are usually not geometrically centered, ballasting of the barges for stability and safety concerns are required before shipping.
- This ballasting reduces the load capacity of the vessel and increases its draft for a given load.

Formulation and Design Considerations

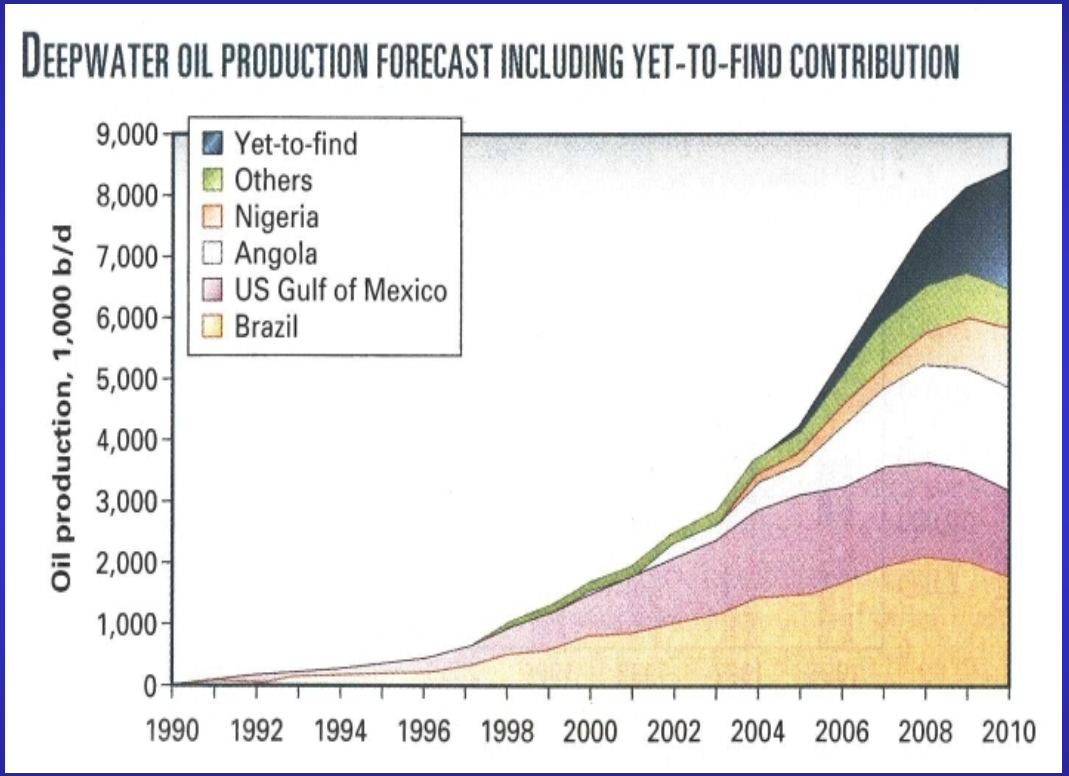
- The standard offshore deck barge size typically used for large topsides (4000T to 6000T) is 400'L X 100'W X 25'D with a maximum draft of 20'.
- To be competitive deepwater topsides that range from 8,000T to 16,000T must fully utilize the maximum draft of the offshore barges.
- Presently the POI fabricators are loading out 4000T to 6000T topsides which are drawing 10 to 12 feet of water
- Each foot of draft in a 400' X 100' offshore barge supports approximately 1200 tons of deck load (not including ballast)
- 6,000 to 10,000 tons would require 5 to 8 feet of additional draft, thereby requiring a 20' channel.

Existing Conditions (cont.)

- Existing navigation channel banks are eroding the bankline
- Adjacent wetlands are deteriorating
  - The study considered plans that would avoid further destruction of wetland during construction.
  - Utilize dredge material wisely and construct features that minimize future erosion of the banklines.

Future Conditions

- Deepwater oil production is increasing, while shallow water production is gradually declining.

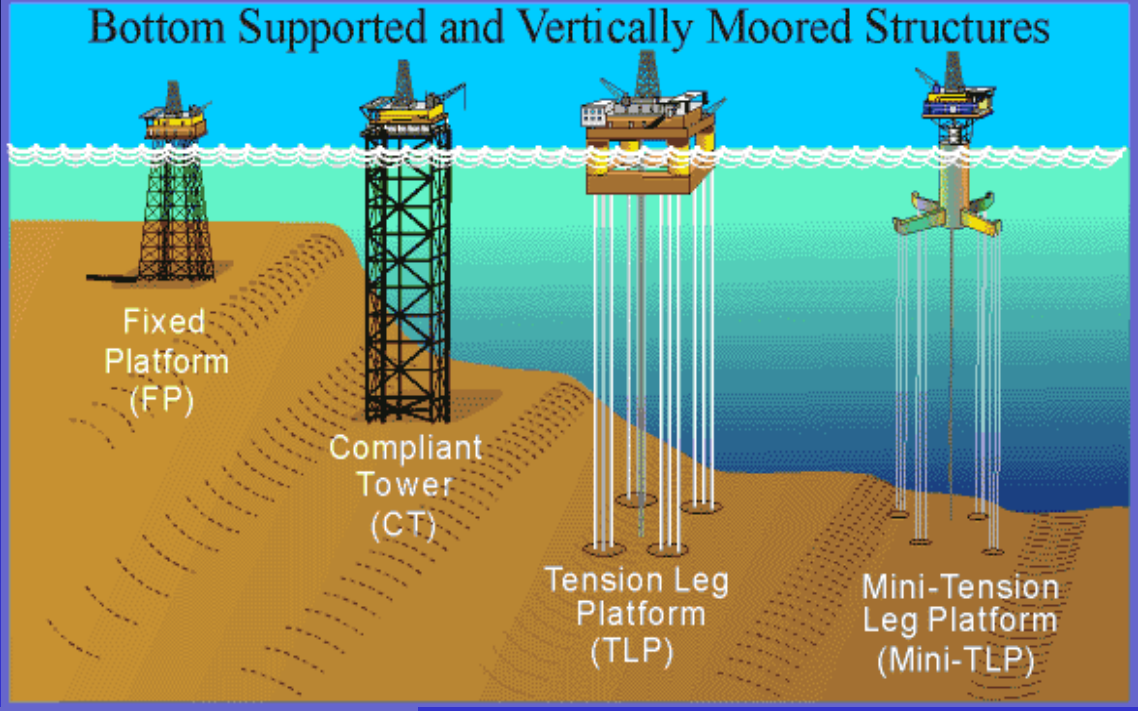


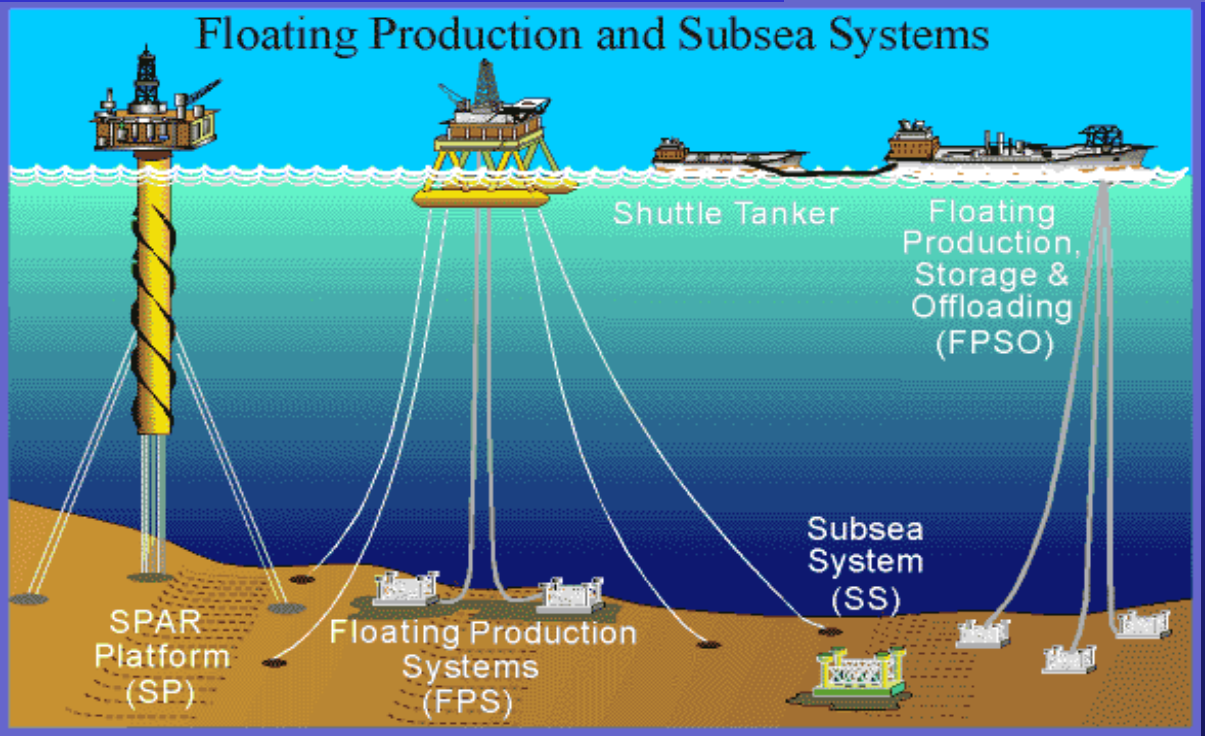
Future Conditions

- Deepwater rigs are larger and require larger vessels for transport.
- Without project, the POI is unable to compete for deepwater business due to depth restrictions.

Transportation along the Houma Navigation Canal

Deepwater Development Systems





Other Considerations

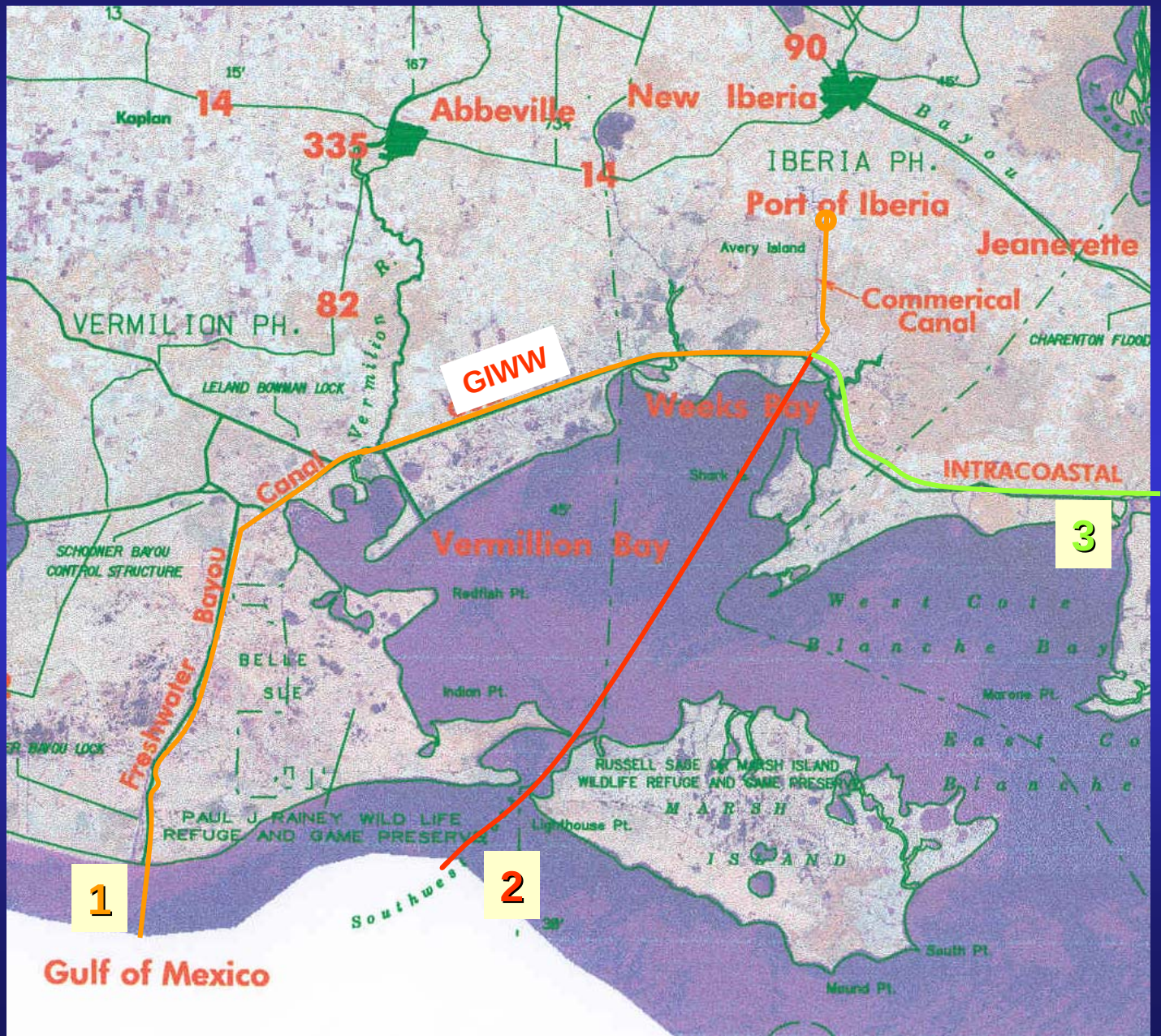
- The study area consists of numerous Federal, State and local projects in the areas of navigation and environmental restoration and protection.

- The project extends into Vermilion Parish – outside the POI jurisdiction. Thus LADOTD would act as the sponsor for construction.

Alternatives Considered

- Deepen Vermilion Bay – Commercial Canal to Acadiana Navigation Canal
- Deepen Freshwater Bayou (FWB) - Commercial Canal to GIWW to the FWB
- Utilize the Atchafalaya River – Deepen Commercial Canal and the GIWW to the Atchafalaya River

Proposed Alignments



Alternative Analysis

The study team also considered…

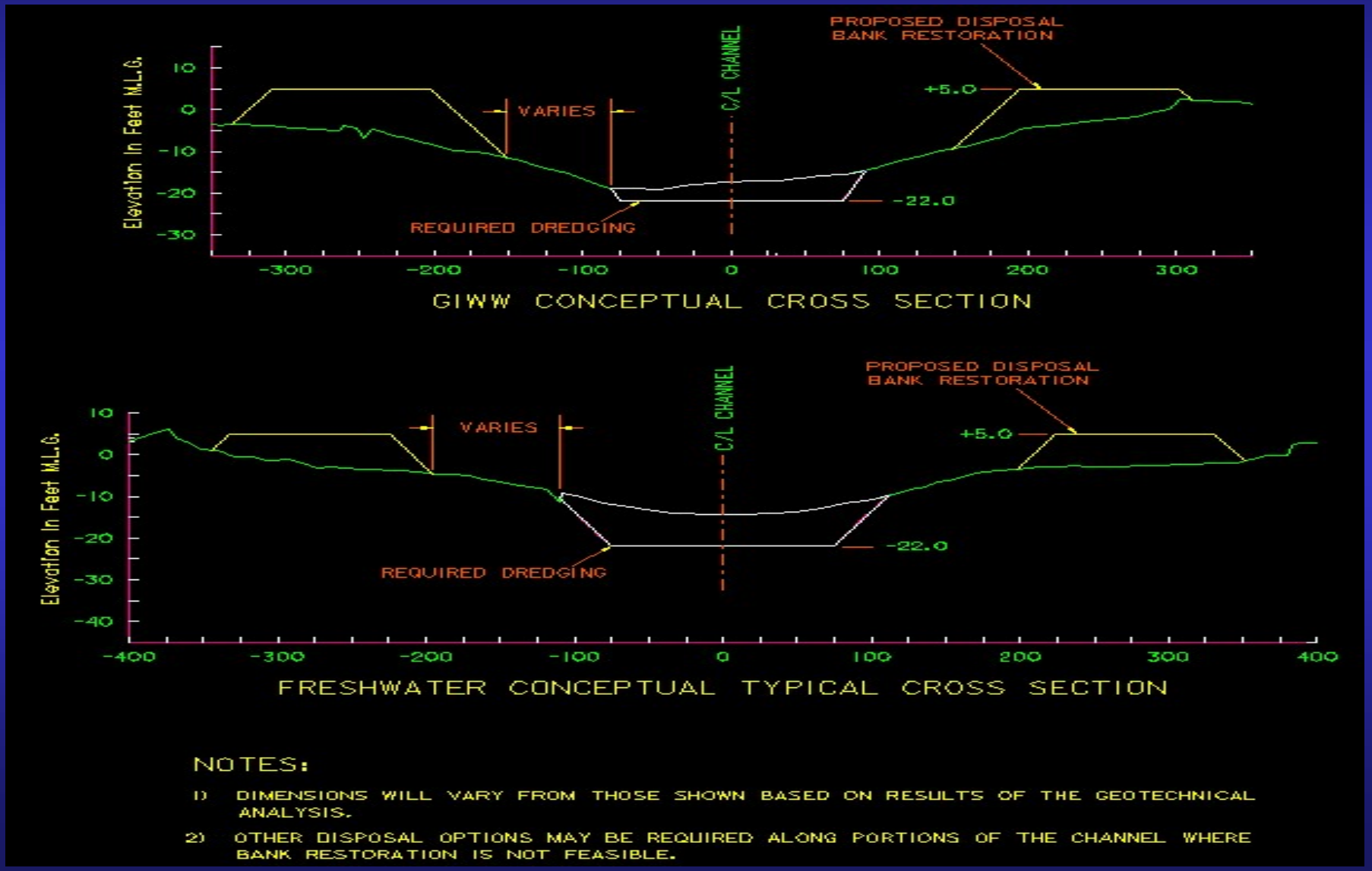
- using all dredge material to replenish wetlands in more than 50 disposal sites
- at least 4 different methods for discharging and/or containing dredge material
- 5 alternative channel dimensions – 125’ wide, 150’ wide, 16’ deep, 18’ deep, and 20’ deep.

Projected Impacts

- Initial placement of dredge material would increase wetland acreage and quality.

- The FWB Lock and FWB by-pass floodgates would be operated to minimize salt water intrusion with deeper channels.

Typical Cross-sections



NOTES:

1) DIMENSIONS WILL VARY FROM THOSE SHOWN BASED ON RESULTS OF THE GEOTECHNICAL ANALYSIS.

2) OTHER DISPOSAL OPTIONS MAY BE REQUIRED ALONG PORTIONS OF THE CHANNEL WHERE BANK RESTORATION IS NOT FEASIBLE.

Environmental Compliance

- Other State and Federal resources agencies participated early in the process
- This extensive coordination resulted in the formulation of a dredge material disposal plan that balances human development activities with natural systems.
- Engaging the Environmental Operating Principles early on, supported NEPA compliance and promoted public acceptance of the plan.

Projected Impacts

Habitat Types	Existing Conditions	No Action Target Year - 50	Tentatively selected plan Target Year - 50
	Acres	Acres	Acres
Fresh Marsh	46	46	131
Intermediate Marsh	1247	74	2618
Brackish Marsh	301	0	445
Marsh converted to upland	501	501	501
Shallow Open Water	239	383	1324
Deepwater Bay	2685	4015	0
Total	5019	5019	5019

Projected Impacts

- The effect of a deeper channel on salinity levels was investigated using a 2-D numerical model.
- The results show that channel deepening up to 150’ wide x 20’ deep would have little to no effect on salinity levels in the project area.
- All salinity increases or decreases were limited to .5 parts per thousand.
  - No adverse impact to habitat

Transportation Savings

- The 16’ and 18’ channel depths do not provide any significant economic benefit because research has indicated that transportation of deepwater rigs and components requires at least 20’ depth.

Projected Costs

- Total project costs for the various channel dimensions – including engineering and design, land acquisition, relocation of pipelines, swing barge installation, rock dike construction and dredging – is estimated to be:

  $203 million for 20’ depth
  $178 million for 18’ depth
  $159 million for 16’ depth

- 50-year project life

Project Construction

- Federal Share $133.5 million
- Non-Fed Share $48.0 million
- Pipeline Owners $21.5 million
  - Relocation of pipelines (Removals)

- Estimated Total $203 million

Average Annual Benefits and Costs ($000, 5.375%)

Costs	**20'**	**18'**	**16'**
Total Avg Annual Cost	15,486	13,223	11,725
Benefits			
Deepwater Fabrication	23,205	20,511	15,766
Transportation Cost Savings	5,223	-	-
Total Annual Benefits	28,428	20,511	15,766
Net Benefits	**12,942**	**7,288**	**4,041**
BCR	**1.8**	**1.6**	**1.3**

Recommended Plan

- The Recommended Plan has a benefit-to-cost ratio of 1.8 to 1 and includes modifying about 60 miles the Commercial Canal, GIWW and Freshwater Bayou to a depth of 20 feet and width of 150 feet.

- Most dredge disposal would be confined to rock dikes built along the inshore channels. Any excess material would be used to replenish broken marsh adjacent to these channels.

Independent Technical Review (ITR)

Performed by the Mobile District

Issues and Concerns

- Saltwater Intrusion due to deeper channel
- No evaluation criteria identified for pipeline relocation
- Lack of compelling economics analysis to support the need for a 20-foot channel

Independent Technical Review

Issues and Concerns (Continued)

- Sufficient coordination with stakeholders, local state and Federal agencies
- Formulation methodology used for dredge material placement and mitigation needs determination
- Local Service Facilities (berthing areas and bulkheads)

Independent Technical Review

Unresolved issues and concerns

- Lack of compelling economics analysis to support the need for a 20-foot channel

Way Forward - ITR

CONCERN - Lack of compelling economics analysis to support the need for a 20 foot channel or Incremental analysis to optimize channel deep and local service facilities.

RESOLUTION - Revise feasibility report to include supplemental information developed and gathered subsequent to report preparation

Conduct a teleconference with ITR and PDT teams, and Rig fabricator and platform experts to discuss industry best practices

Legal Certification Concerns

- Inadequate environmental data collected following Hurricanes Katrina and Rita to determine whether conditions changed substantially enough to affect EIS
- Opportunity for public comment on the EIS may have been compromised by the hurricanes
- Several technical and policy comments have not been resolved

Way Forward – Legal Certification

CONCERN - Inadequate environmental data collected following Hurricanes Katrina and Rita to determine whether conditions changed substantially enough to affect EIS

RESOLUTION - Additional data is being collected and analyzed and deficiency resolved by the conclusion of the 30-day EIS public review

Way Forward – Legal Certification

CONCERN - Opportunity for public comment on the EIS may have been compromised by the hurricanes

RESOLUTION - Request additional public comments on the final EIS before the final agency decision

Way Forward – Legal Certification

CONCERN - Several technical and policy comments have not been resolved

RESOLUTION - Diligently seek consensus from reviewers on the amount of data required to provide sufficient documentation of methodology used in economic analysis to support the need for a 20-foot channel

Project Schedule

- 24 Oct 05 — Close Public Review and Comment Period
- 31 Oct 05 — Present Feasibility Report to HQUSACE
- 4 Nov 05 — File Report and EIS with EPA
- 11 Nov 05 — State and Agency review begins
- 31 Dec 05 — Chief of Engineer's Report

- Request contingent authorization in WRDA 2005

US Army
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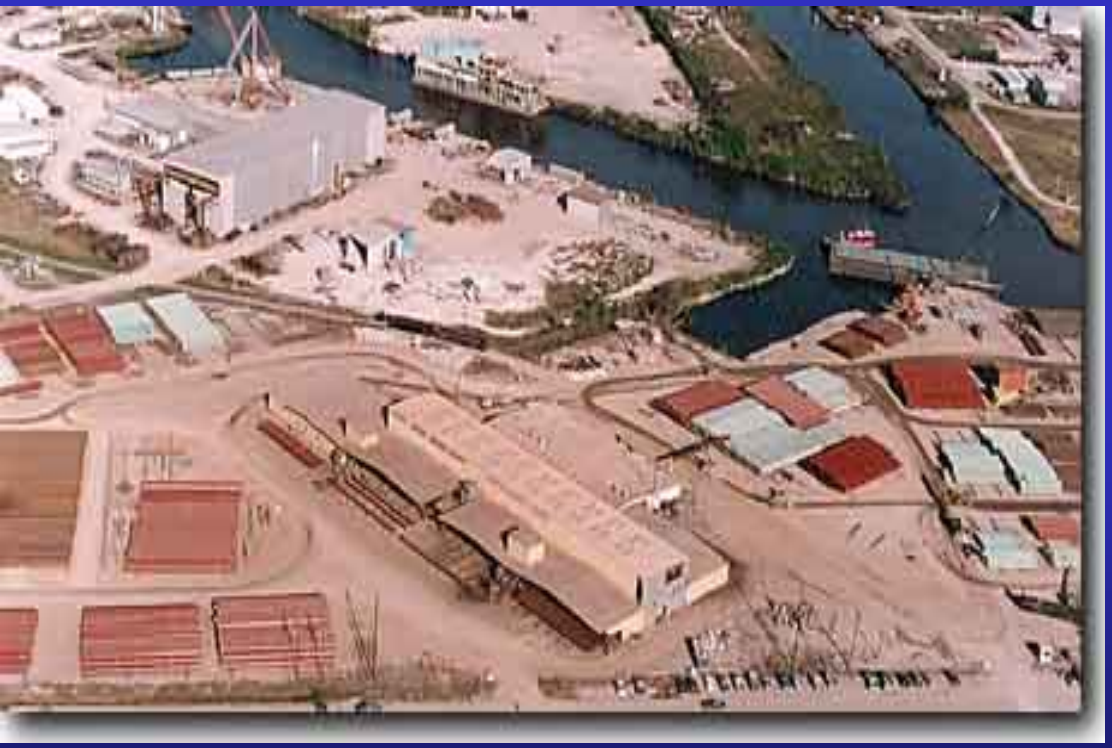
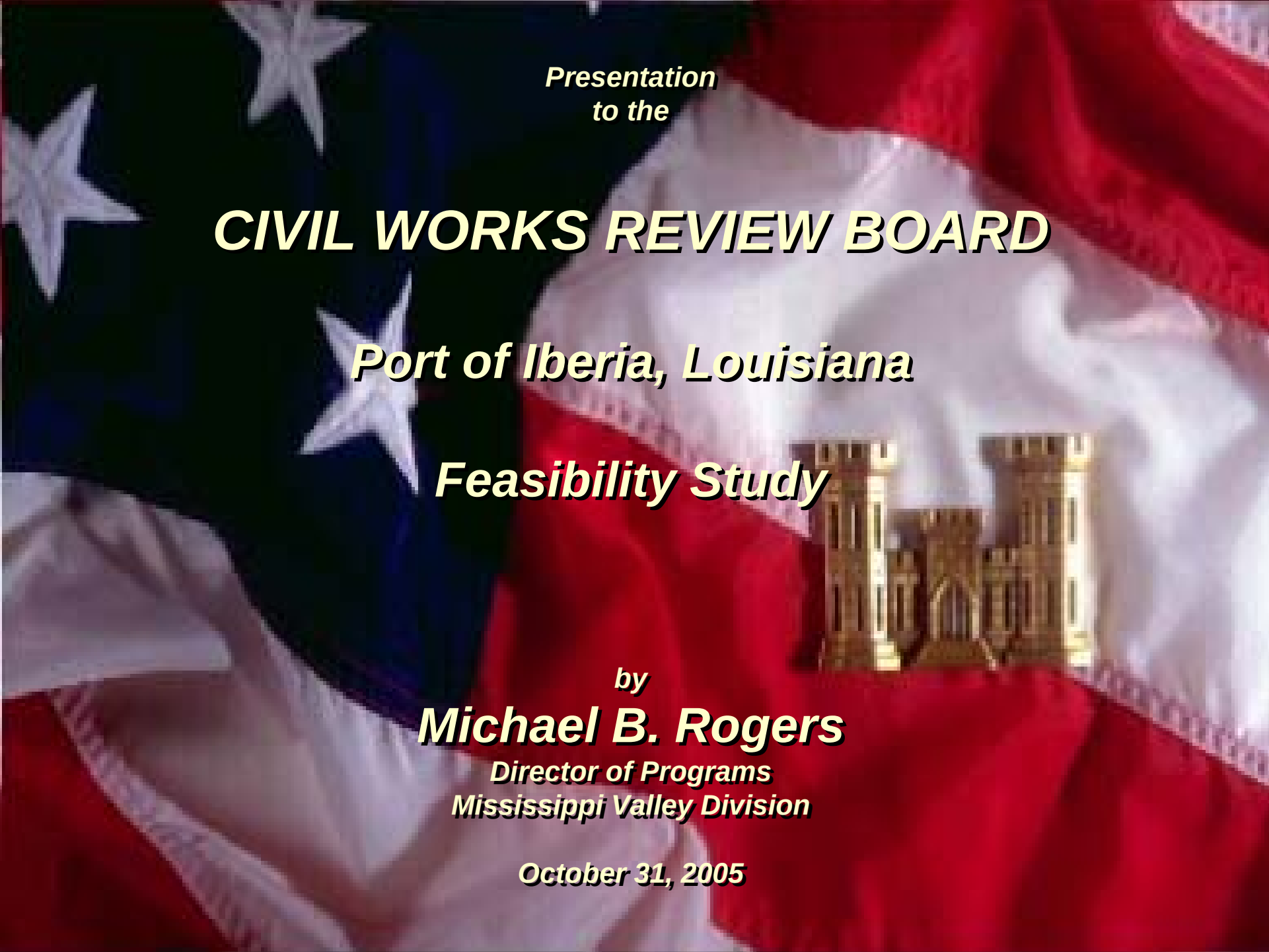
Questions

PORT OF IBERIA



Roy Pontiff
Executive Director



Presentation
to the

CIVIL WORKS REVIEW BOARD

Port of Iberia, Louisiana

Feasibility Study

by

Michael B. Rogers
Director of Programs
Mississippi Valley Division

October 31, 2005

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Rationale for MVD Support

- Concur with MVN Commander's findings and recommendations subject to satisfactory resolution of ITR and policy comments and incorporation of responses to comments received on draft report
- Anticipate a favorable response to the draft Chief's Report
- Plan supported by sponsor and congressional delegation

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Certification of Legal and Policy Compliance

- Legal certification by MVN Counsel will occur upon resolution of ITR and policy issues and certification of NEPA compliance
- Technical and policy compliance:
  - SAM performed ITR
  - Remaining unresolved comments relate to level of detail sufficient to support various aspects of economic evaluations
  - Additional action this week
- NEPA Compliance:
  - Incorporate comments
  - Confirm existing conditions post-hurricane

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MVD Quality Assurance Activities

- Active participation by vertical team
- Worked with MVN to resolve HQ review comments and agreed on plan to proceed with release of draft report
- Worked with industry experts on various engineering aspects including load and draft requirements
- Supports plan to resolve final ITR and policy comments

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MVD Recommendation

- Complete final report with responses to comments on draft report
- Agree with plan to resolve ITR and policy comments
- Release report for State and Agency Review with recommendation dependent on ITR and policy resolution
- Complete Chief's Report NLT 31 Dec 05 to meet contingent authorization

Civil Works Review Board

Significant Policy Review Concerns

Port of Iberia, Louisiana
Final Feasibility Report
& EIS October 2005

Steve Cone
Office of Water Project Review
Policy and Policy Compliance Division

Washington, DC – October 31, 2005

Port of Iberia, Louisiana Feasibility Rpt & EIS

- Background of OWPR Involvement
- Congressional Directions
- Final Report Status
- Current Issues/Concerns
- Recommendations
- Chiefs Report Timeline

Port of Iberia, Louisiana Feasibility Rpt & EIS

- Background of OWPR Involvement
  - AFB Spring 2004
    - ITR & HQ Review Conducted
    - Economic Analysis Not In Accord W/ P&G
    - Least Cost Disposal or NER formulation

Port of Iberia, Louisiana Feasibility Rpt & EIS

- Background of OWPR Involvement
  - Summer/Fall 2004
    - Chief Economist & DDNPCX
    - Guidance on Benefit Methodology
    - Reviewed District Scope of Work
    - Meetings - Sponsors (POI – Morgan City)
    - Concerns: P&G and Foreign Competition

Port of Iberia, Louisiana Feasibility Rpt & EIS

- Background of OWPR Involvement
  - Spring/Summer 2005
    - External Review Panel
    - Affirmed HQ/ITR Reviews of Prior Reports
    - Affirmed New Scope of Study
    - Under-Employment Benefits

Port of Iberia, Louisiana Feasibility Rpt & EIS

- Background of OWPR Involvement
  - Early Summer 2005
    - District Preliminary Economic Results
    - No Foreign Competition in GOM Topsides
    - Excess U.S. Capacity (< 50%)
    - Number & Value of Contracts
    - POI Share = 25% average

Average Annual Benefits and Costs ($000, 5.375%)

Costs	**20'**	**18'**	**16'**
Total Avg Annual Cost	15,486	13,223	11,725
Benefits			
Deepwater Fabrication	23,205	20,511	15,766
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Congressional Directions

In determining the economic justification for navigation projects involving offshore oil and gas fabrication ports, the Secretary of the Army, acting through the Chief of Engineers, is directed to measure and include in the National Economic Development calculations the value of future energy exploration and production fabrication contracts and transportation cost savings that would result from larger navigation channels.

(Section 6009 FY 2005 Second Supplemental Appropriations Bill; Public Law 109-13)

Port of Iberia, Louisiana Feasibility Rpt & EIS

- Final Report Status
  - Received this morning (10/31/05) via personal delivery by district
  - No time to review materials and assess policy compliance in final report form
  - Timeline to complete Chiefs Report by 31 December 2005 is extremely tight

Port of Iberia, Louisiana Feasibility Rpt & EIS

- Current Issues and Concerns
  - Incomplete ITR and Legal Certification
  - Compensatory Mitigation
  - Least Cost Disposal
  - Local Service Facilities
  - Incremental Analysis

Incomplete ITR and Legal Certification

Concern: ITR and Legal Certification of final report have not been completed

Reason: Corps regulations require that ITR and Legal Certification be completed or that there is a clear path to resolution and any remaining issues will not materially affect results and recommendations.

Resolution: Not Resolved.

Impact: Affects ability to resolve Remaining Policy Issues, and affects decision to initiate S&A and NEPA reviews.

Compensatory Mitigation

Concern: HQUSACE questions the need to provide compensatory mitigation given that the disposal method would result in a net gain of over 4,000 acres of marsh.

Reason: The draft report recommended compensatory mitigation for some 343 acres adversely affected by a confined disposal area, however more than 4,000 acres of marsh are created by other aspects of the disposal plan. Gains should offset losses when determining the need for compensatory mitigation.

Resolution: District has stated that the Final report eliminates discussion of the mitigation proposed in the draft report.

Resolution Impact: This should resolve the concern.

Least Cost Disposal Plan

Concern: HQ has pointed out the need to ensure identification of the least-cost environmentally acceptable dredged material disposal plan (aka Navigation Base Plan for disposal)

Reason: OMRR&R costs are high, averaging $3.7M per year, with some years requiring $10-$15M. Disposal plan accrues significant NER benefits. Need to ensure that the Navigation purpose is not paying for costs for Ecosystem Restoration measures.

Resolution: District has demonstrated that all other disposal options are either more costly or would not be environmentally acceptable

Resolution Impact: Concern Resolved. However, project will have high OMRR&R costs which may not be avoidable or deferrable due to potential environmental impacts

Local Service Facilities

Concern: HQ has pointed out the need to ensure the cost of all local service facilities is included in project plans and costs. Mainly berthing areas and bulkheads

Reason: Local service facilities are a 100% non-Federal responsibility and need to be included in plan to ensure realization of benefits.

Resolution: Not resolved. HQ has not had opportunity to review all responses and final report.

Resolution Impact: May not be critical as LSFs are not likely to change report results.

Incremental Analysis

Concern: Incremental analysis determines the optimal plan for Federal investment. Only limited summary information was provided on benefits by channel depth. Channel may optimize at less than 20 ft.

Reason: Corps policy requires that incremental analysis be done to identify the NED plan. – COE expressed that even in using Congressionally directed benefit measure, all other Army/Corps standards should apply

Resolution: Not Resolved. Draft and final report have not sufficiently identified shipping characteristics of the topsides and equipment that would move in with and without condition to make determination of NED channel size. – Need ITR resolution as first step.

Resolution Impact: Concern unresolved to date.

HQUSACE Policy Compliance Review Team RECOMMENDATION

Do not release the report and EIS for S&A Review

Port of Iberia, Louisiana Feasibility Rpt & EIS

Chiefs Report Timeline

CWRB Briefings	**31 Oct 05**
S&A Letters	**01 Nov 05**
S&A period Complete	**01 Dec 05**
Notice EPA for FEIS	**01 Nov 05**
Fed Register Announcement	**10 Nov 05**
Public Comment Period End	**12 Dec 05**
Signed COE Report	**27 Dec 05**

Civil Works Review Board Action

Lessons Learned

- Maintain communication with ITR, PDT, and Vertical Team throughout study
- Take a comprehensive approach to developing non-standard economic analysis processes early on in the study.
- Improve corporate management of customer expectations.

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MVD
Lessons Learned

- Critical ITR and policy review comments were unresolved during review of draft.
- Local sponsors and users are an important resource in resolving technical or policy issues and should be involved early in the comment resolution process.
- A District relocating prior to a pending disaster should go over critical schedules and transfer critical data to backup District in advance.


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BY AMERICANS
FOR AMERICA